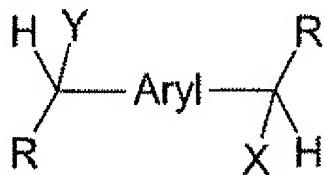


AMENDMENTS TO THE CLAIMS

1. (Currently amended) A process for preparing poly(arylenevinylanes) from bis(halomethyl)arylenes or halomethylsulfinylmethylarylenes by which comprises base-induced dehydrohalogenation, characterized in that wherein the reaction is carried out in the presence of 0.1-80 mol% of one or more compounds of the formula (I):



Formula (I)

where the symbols are defined as follows:

Aryl is the same or different at each instance and is a bivalent aromatic or heteroaromatic ring system which has from 2 to 40 carbon atoms and may be substituted by R¹ radicals or else be unsubstituted, or an R¹-substituted or unsubstituted stilbenylene unit; the two substituents CHXR and CHYR are arranged in such a way that there is an even number of aromatic atoms between them; the aryl and heteroaryl systems may also be part of a larger fused aromatic ring system; the possible substituents R¹ may potentially be situated at any free position;

R is the same or different at each instance and is an alkyl chain which has from 1 to 40 carbon atoms and may be straight-chain, branched or cyclic, and may also be substituted by one or more R¹ radicals or be unsubstituted, in which one or more nonadjacent carbon atoms may also be replaced by -CR²=CR²-, -C≡C-, -NR²-, -O-, -S-, -CO-, -CO-O-, -CONR²-, -O-CO-O-, and one or more hydrogen atoms may also be replaced by fluorine, an aromatic or heteroaromatic ring system which has from 2 to 40 carbon atoms and may be substituted by R¹ or be unsubstituted, an R¹-substituted or unsubstituted stilbenyl or tolanyl unit, -Si(R²)₃,

$-N(R^2)_2$, $-OR^2$ or a combination of these systems; the aryl and heteroaryl systems may also be part of a larger fused aromatic ring system; the possible substituents may potentially be situated at any free position;

X is the same or different at each instance and is Cl, Br, I, trifluoromethanesulfonate or arylsulfonate;

Y is the same or different at each instance and is Cl, Br, I, trifluoromethanesulfonate, arylsulfonate, $-S(O)R^2$ or R^1 ;

R^1 is the same or different at each instance and is a straight-chain, branched or cyclic alkyl chain having from 1 to 40 carbon atoms, in which one or more nonadjacent carbon atoms may also be replaced by $-CR^2=CR^2-$, $-C\equiv C-$, $-NR^2-$, $-O-$, $-S-$, $-CO-$, $-CO-O-$, $-CONR^2-$, $-O-CO-O-$, and one or more hydrogen atoms may be replaced by fluorine, an aromatic or heteroaromatic ring system which has from 2 to 40 carbon atoms and may also be substituted by one or more nonaromatic R^1 radicals, a substituted or unsubstituted vinyl group or Cl, F, CN, $N(R^2)_2$, $B(R^2)_2$; the aryl and heteroaryl systems may also be part of a larger fused aromatic ring system; the possible substituents may potentially be situated at any free position; two or more R^1 radicals together may also form a ring system;

R^2 is the same or different at each instance and is H, a straight-chain, branched or cyclic alkyl chain having 1 to 22 carbon atoms, in which one or more nonadjacent carbon atoms may also be replaced by $-O-$, $-S-$, $-CO-O-$, $-O-CO-O-$, and one or more hydrogen atoms may also be replaced by fluorine, an aryl or heteroaryl system which has from 2 to 40 carbon atoms and may also be substituted by one or more nonaromatic R^1 .

2. (Currently amended) The process as claimed in claim 1, characterized in that wherein the halogen atoms in the bis(halomethyl)arylene monomers or the halomethylsulfinylmethylarylene monomers are the same or different and are each Cl, Br or I.

3. (Currently amended) The process as claimed in claim 1, characterized in that wherein the polymerization is carried out in an ether, an aromatic hydrocarbon, a chlorinated aromatic compound or a mixture of these solvents if bis(halomethyl)arylene monomers are used, or that the polymerization is carried out in an ether, an aromatic hydrocarbon, a chlorinated aromatic or nonaromatic compound, DMSO, an alcohol or a mixture of these solvents if halomethylsulfinylmethylarylene monomers are used.
4. (Currently amended) The process as claimed in claim 1, characterized in that wherein the reaction is carried out in a concentration range from 0.005 to 5 mol/L mol/l (monomer/solution volume).
5. (Currently amended) The process as claimed in claim 1, characterized in that wherein the bases used are alkali metal hydroxides, alkali metal alkoxides or organic amines or amides, or else alkali metal hydrides or metal organyls, provided that the solvents used are not DMSO, alcohols or chlorinated solvents.
6. (Currently amended) The process as claimed in claim 1, characterized in that wherein the amount of the base used is in the range from 2 to 10 equivalents (based on one equivalent of monomer) if the monomers used are bis(halomethyl)aryl compounds, and in the range from 1 to 10 equivalents (based on one equivalent of monomer) if the monomers used are halomethylsulfinylmethylaryl compounds.
7. (Currently amended) The process as claimed in claim 1, characterized in that wherein between 2 and 40 mol% (based on the total amount of the remaining monomers) of one or more compounds of the formula (I) is added.
8. (Currently amended) The process as claimed in claim 1, characterized in that, wherein for the compound of the formula (I):

Aryl is the same or different at each instance and is a bivalent aromatic ring system which has from 2 to 40 carbon atoms and optionally is substituted by up to 4 substituents R¹ or else be unsubstituted, or an R¹-substituted or unsubstituted stilbenylene unit; the two substituents CHXR and CHYR are arranged in such a way that there is an even number of aromatic atoms between them; the aryl

system optionally is part of a larger fused aromatic ring system; the possible substituents R¹ may potentially be situated at any free position;

R is as defined in claim 1;

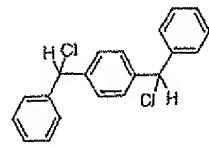
X is the same or different at each instance and is Cl, Br, I;

Y is as defined in claim 1;

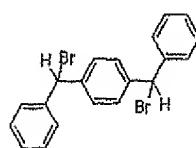
~~R¹,R² are each as defined in claim 1~~

R¹ and R² are each as defined in claim 1.

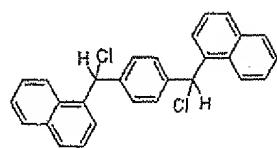
9. (Currently amended) The process as claimed in claim 8, characterized in that wherein the compound of the formula (I) is selected from the formulae (II) to (XXV) which may be substituted or unsubstituted:



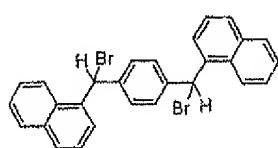
Formula (II)



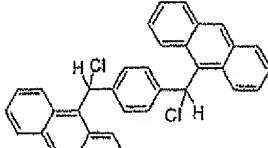
Formula (III)



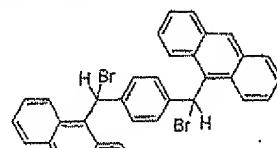
Formula (IV)



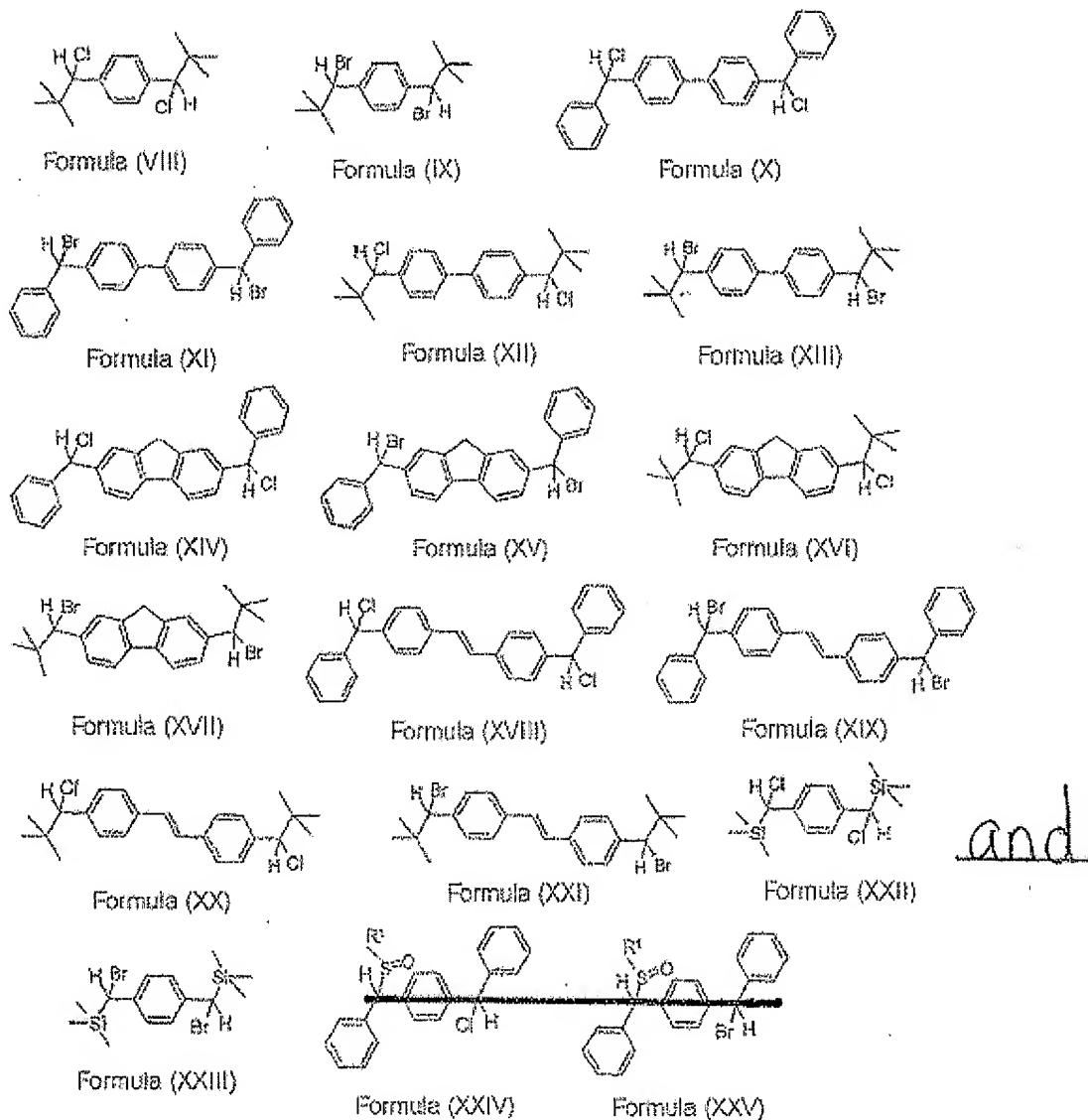
Formula (V)



Formula (VI)



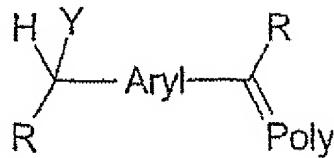
Formula (VII)



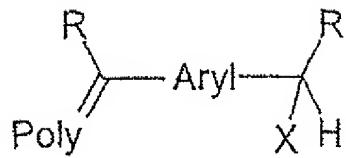
10. (Cancelled)

11. (Currently amended) Poly(arylenevinylene)s containing at least 0.1 mol% of units of the

formula (Ia) and/or (Ib)

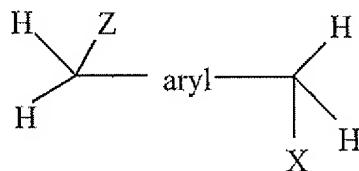


Formula (Ia)



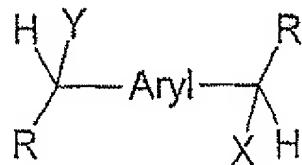
Formula (Ib)

obtainable from bis(halomethyl)arylenes or halomethylsulfinylmethylarylenes by which comprises base-induced dehydrohalogenation, characterized in that wherein the reaction is carried out by polymerization of monomers of the formula (XXVI)



Formula (XXVI)

in the presence of 0.1 – 80 mol% of one or more compounds of the formula (I):



Formula (I)

where the symbols in formula (I), (Ia), (Ib) and (XXVI) have the following meanings are defined as follows:

Aryl is on each occurrence, identically or differently, the same or different at each instance and is a divalent aromatic or heteroaromatic ring system having 2 to 40 C atoms, which has from 2 to 40 carbon atoms and may be is optionally

substituted by radicals R¹ R² radicals or else be unsubstituted, or an R¹-substituted or unsubstituted stilbenylene unit; the two substituents CHXR and CHYR are arranged in such a way that there is an even number of aromatic atoms between them; the aryl and heteroaryl systems may also be part of a larger fused condensed aromatic ring system; the possible substituents R¹ may potentially be situated at any free position;

R is on each occurrence, identically or differently, the same or different at each instance and is an alkyl chain having 1 to 40 C atoms, which has from 1 to 40 carbon atoms and may be straight-chain, branched or cyclic, and which, in addition, is optionally may also be substituted by one or more R¹ radicals or be unsubstituted, in which one or more nonadjacent carbon atoms may also be is optionally replaced by -CR²=CR²-, -C≡C-, -NR²-, -O-, -S-, -CO-, -CO-O-, -CONR²-, -O-CO-O-, and one or more hydrogen atoms may also be is optionally replaced by fluorine, an aromatic or heteroaromatic ring system which has from 2 to 40 carbon atoms and may be is optionally substituted by R¹ or be unsubstituted, an R¹-substituted or unsubstituted stilbenyl or tolanyl unit, -Si(R²)₃, -N(R²)₂, -OR² or a combination of these systems; the aryl and heteroaryl systems may also be is optionally part of a larger condensed fused aromatic ring system; the possible substituents may potentially be in a situated at any free position;

X, Y, X and Z are on each occurrence, identically or differently, is the same or different at each instance and is Cl, Br, I, Cl, Br, I, trifluoromethanesulfonate or arylsulfonate;

Y is on each occurrence, identically or differently, the same or different at each instance and is Cl, Br, I, Cl, Br, I, trifluoromethanesulfonate, arylsulfonate, -S(O)R² or R¹;

R¹ is on each occurrence, identically or differently, the same or different at each instance and is a straight-chain, branched or cyclic alkyl chain having from 1 to 40 carbon atoms, in which one or more nonadjacent carbon atoms may also be is optionally replaced by -CR²=CR²-, -C≡C-, -NR²-, -O-, -S-, -CO-, -CO-O-,

-CONR²-, -O-CO-O-, and one or more hydrogen atoms may be is optionally replaced by fluorine, an aromatic or heteroaromatic ring system which has from 2 to 40 carbon atoms and may also be optionally is substituted by one or more nonaromatic R¹ radicals, a substituted or unsubstituted vinyl group or Cl, F, CN, N(R²)₂, B(R²)₂; the aryl and heteroaryl systems may also be are optionally part of a larger fused aromatic ring system; the possible substituents may potentially be situated at any free position; two or more R¹ radicals together may also optionally form a ring system with one another;

R² is on each occurrence, identically or differently, the same or different at each instance and is H, a straight-chain, branched or cyclic alkyl chain having 1 to 22 carbon atoms, in which one or more nonadjacent carbon atoms may also be replaced by -O-, -S-, -CO-O-, -O-CO-O-, and one or more hydrogen atoms may also be replaced by fluorine, an aryl or heteroaryl system which has from 2 to 40 carbon atoms and may also be is optionally substituted by one or more nonaromatic R¹ and

Poly represents a bond to a poly(arylenevinylene) main chain.

12. (Currently amended) Poly(arylenevinylenes) as claimed in claim 11, characterized in that wherein the poly radical represents one or more poly(arylenevinylenes).
13. (Currently amended) Poly(arylenevinylenes) as claimed in claim 11, characterized in that wherein the poly radical is a poly(arylenevinylene) homo- or copolymer which may optionally be substituted.
14. (Cancelled)
15. (Previously presented) An electronic component comprising cathode, anode and one or more active layers, at least one of these active layers comprising one or more poly(arylenevinylenes) as claimed in claim 11.
16. (Currently amended) The electronic component as claimed in claim 15, characterized in that wherein it comprises polymeric light-emitting diodes (PLEDs), organic integrated

circuits (O-ICs), organic field-effect transistors (OFETs), organic thin-film transistors (OTFTs), organic solar cells (O-SCs), organic photorefractive elements, organic light-emitting diodes (OLEDs) or organic laser diodes (O-laser).

17. (Previously presented) An electroluminescent material in polymeric light-emitting diodes (PLEDs) which comprises the poly(arylenevinylenes) as claimed in claim 11.
18. (Previously presented) An organic integrated circuit (O-IC), an organic field-effect transistor (OFET), an organic thin-film transistor (OTFT), a photorefractive elements, an organic solar cell which comprises the poly(arylenevinylenes) as claimed in claim 11.